

PATENT
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Petersen et al.

Group Art Unit: Unassigned

Application No. Unassigned
(U.S. National Phase of PCT/DK00/00319)

Examiner: Unassigned

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For: A HEAT EXCHANGE PLATE AND
SUCH A PLATE WITH A GASKET

AMENDMENTS TO CLAIMS MADE IN
PRELIMINARY AMENDMENT DATED DECEMBER 13, 2001

Amendments to the claims:

Please amend claims 1- 10 as follows:

1. A heat exchanger plate [(1;21)] for a plate-type heat exchanger, said plate [(1;21)] comprising a gasket groove [(6;26)] in the form of an indentation that extends, at least across the portion of the plate [(1;21)], close to the periphery of the plate and is, at intervals, provided with an expanded portion [(7;27)] for receiving a coupling element [(10;30;40)] on an associated gasket [(3;33;43)], said expanded portion [(7;27)] being situated substantially in the same place as the gasket groove [(6;26)] itself, wherein there is, in connection with each of the expanded portions [(7;27)] of the gasket groove [(6;26)], by cutting and ridging of the plate material provided at least two openings [(8;28)] substantially perpendicular to the longitudinal direction of the gasket groove, said coupling element [(10;30;40)], [characterised in that] wherein in the expanded portion [(7;27)] and substantially perpendicular to the gasket groove [(6;26)] there is

provided at least one ridged, tongue-like portion [(9;29)], wherein the openings [(8;28)] are located at each side of the tongue-like portion [(9;29)] between this and the expanded portion [(7;27)] of the gasket groove [(6;26)].

2. A heat exchanger plate according to claim 1, [characterised in that] wherein one ridged, tongue-like portion [(9)] is provided centrally in the expanded portion [(7)].

3. A heat exchanger plate according to claim 1, [characterised in that] wherein two ridged, tongue-like portions [(29)] are provided at a distance from each other in the expanded portion [(27)].

4. A heat exchanger plate according to claim 1, [characterised in that] wherein a gasket [(3;33;43)] is provided, said coupling element [(10;30;40)] of the gasket comprises protruding flaps [(11;31;42)] that are able to engage with the openings [(8;28)].

5. A heat exchanger plate according to claim 4, [characterised in that] wherein one ridged, tongue-like portion [(9)] is provided centrally in the expanded portion [(7)]; and that the coupling element [(10)] of the gasket comprises two protruding flaps [(11)] that are configured for engaging with the openings [(8)] provided at each side of the tongue-like portion [(9)].

6. A heat exchanger plate according to claim 4, [characterised in that] wherein two ridged, tongue-like portions [(29)] are provided at a distance from each other in the expanded portion [(27)]; and that the coupling element [(30)] of the gasket comprises a protruding flap [(31)] configured for engaging the two central and mutually facing openings [(28)] provided at each their tongue-like portion [(29)].

7. A heat exchanger plate according to claim 4, [characterised in that] wherein two ridged, tongue-like portions [(29)] are provided at a distance from each other in the expanded portion [(27)]; and that the coupling element [(40)] of the gasket comprises two outwardly protruding flaps [(42)] that are configured for engaging with the two mutually most distant openings [(28)] provided at each their tongue-like portion [(29)].

8. (Amended) A heat exchanger plate according to [any one of claims 4-7] claim 4, [characterised in that] wherein the flaps [(11;32;42)] on the coupling elements [(10;30;40)] of the gasket extend partially into the openings [(8;28)].

9. (Amended) A heat exchanger plate according to [any one of claims 4-7] claim 4, [characterised in that] wherein the flaps [(11;31;42)] on the coupling elements [(10;30;40)] of the gasket press on the openings [(8;28)] without extending considerably into the same.

10. (Amended) A heat exchanger plate according to [any one of claims 4-9] claim 4, [characterised in that] wherein the coupling element [(10;30;40)] of the gasket is provided with a superjacent pressure element [(34)].

Please add the claims 11-21:

11. (New) A heat exchanger plate according to claim 5, wherein the flaps on the coupling elements of the gasket extend partially into the openings.

12. (New) A heat exchanger plate according to claim 6, wherein the flaps on the coupling elements of the gasket extend partially into the openings.

13. (New) A heat exchanger plate according to claim 7, wherein the flaps on the coupling elements of the gasket extend partially into the openings.

14. (New) A heat exchanger plate according to claim 5, wherein the flaps on the coupling elements of the gasket press on the openings without extending considerably into the same.

15. (New) A heat exchanger plate according to claim 6, wherein the flaps on the coupling elements of the gasket press on the openings without extending considerably into the same.

16. (New) A heat exchanger plate according to claim 7, wherein the flaps on the coupling elements of the gasket press on the openings without extending considerably into the same.

17. (New) A heat exchanger plate according to claim 5, wherein the coupling element of the gasket is provided with a superjacent pressure element.

18. (New) A heat exchanger plate according to claim 6, wherein the coupling element of the gasket is provided with a superjacent pressure element.

19. (New) A heat exchanger plate according to claim 7, wherein the coupling element of the gasket is provided with a superjacent pressure element.

20. (New) A heat exchanger plate according to claim 8, wherein the coupling element of the gasket is provided with a superjacent pressure element.

21. (New) A heat exchanger plate according to claim 9, wherein the coupling element of the gasket is provided with a superjacent pressure element.